

# Wildlife Walkers



## In a Nutshell

Students learn and then practice walking the 4 most common wildlife walking patterns. They discover how an animal's body shape relates to its walking pattern. A trail hike will challenge students to locate and follow animals tracks and learn to recognize other common wildlife signs.

Grade K-1  
Season Winter  
Location Visitor Center



## Learning Objectives

After participating in this activity, students will be able to:

- Describe how an animal's body shape relates to its walking pattern.
- Recognize that different animals leave behind different looking tracks.
- Give at least two examples of signs that animals leave behind (other than tracks).

## Literature Connections

Someone Walks By by Polly Carlson-Voiles

Tracks, Scats and Signs by Leslie Dendy (IG730L)

Big Tracks, Little Tracks by Millicent E. Selsam (AD370L)

In the Woods: Who's Been Here? by Lindsay Barrett George

In the Snow: Who's Been Here? by Lindsay Barrett George

Tracks in the Wild by Betsy Bowen (NC1040L)

You Can Be a Nature Detective by Peggy Kochanoff

## Pre-Activities

Students will be introduced to and then try to imitate the 4 main walking patterns and the tracks that common refuge wildlife leave behind.



## Minnesota Valley National Wildlife Refuge

### On-site Activities

Students will investigate a variety of real wildlife signs that represent feeding, nests and shelter, body waste, tracks and trails and sounds. During a refuge hike they will search for, record and then report on the wildlife signs they find. Students will use snowshoes for the hike weather permitting.

### Classroom Connection

Lead a hike around your school-yard to search for signs of wildlife. Ask students to use their new skills to determine what animals have been there. Back in the classroom compare the school-yard findings with those found during the refuge hike. What might account for the difference?

### Teacher Resources

Tracking & the Art of Seeing by Paul Rezendes

Animal Tracks of Minnesota & Wisconsin by Ian Sheldon

Discover Nature in Winter by Elizabeth Lawlor

Guide to Nature in Winter by Donald Stokes

Mammal Tracks and Sign by Mark Elbroch

Minnesota Valley National Wildlife Refuge

3825 American Blvd E Bloomington, MN 55425    15865 Rapids Lake Rd Carver, MN 55315



## Wildlife Walkers Pre-Visit Activities

### Materials

- Four track rolls, one representing each of the following animal walking patterns: Perfect Walker, Hopper, Waddler, and Bounder.
- At least one puppet representative from each of the four walking patterns groups. For example: deer (perfect walker), rabbit (hopper), Raccoon (waddler), Otter (bounder)
- Laminated animal pictures (turkey, rabbit, raccoon, river otter, deer, fox, songbird, opossum) with track illustrations on the back.

### Introduction

Ask students to think back to the last time they were outside. Did students see any wild animals? If students answer yes, ask them to identify the animals. If students answer no, ask them to think of something the animals may have left behind, a clue, that they had been there.

Animal tracks look different depending on the size and shape of their foot, the number of toes they have, whether or not they have long nails. The trail pattern will also be different depending on their body shape. Today, students will learn to recognize four different track patterns we find on the refuge.

### Track Pattern Rolls

Roll out the first track pattern strip. Make sure there is enough room for you and the students to move. Ask students to look at the first set of animal tracks, labeled Bounder, on the sheet. Using puppets and/or laminated pictures to help students identify the animal that left the set of tracks (in this case a river otter). Using the puppet or picture, examine the body shape with the students and relate this back to the animal walking pattern.

## Minnesota Valley National Wildlife Refuge

Now demonstrate the walking style of the river otter. Use the written description to verbally describe the pattern. Ask students to line up at one end of the pattern strip and walk the bouncer pattern like a river otter. This will help younger students make connections with this “whole body” learning experience. The activity is ideal for students who may be excited and have a little extra energy to burn!

Repeat this process with the track patterns labeled Waddlers, Hoppers and Walkers.

### *Bouncer Bounce*

Bouncers like River Otters and weasels, have short legs and long, sleek bodies. Their back feet land where their front feet stepped as they are bounding.



### *The Raccoon Waddle*

Raccoons like skunks, beavers and opossums have short legs and round bodies. Their alternate walking pattern resembles waddling. The hind foot and front foot are placed side by side. The pattern alternates from side to side. (Front foot left / hind foot right; front foot right / hind foot left)



### *Do The Bunny Hop*

Rabbits, squirrels, chipmunks and many mice are hoppers. The two smaller front feet hit the ground first and are close together (often one foot is slightly ahead of the other). The larger hind feet land farther apart and hit the ground in ahead of the front paws.



### *Perfect Walk*

Like people, large birds (such as herons or turkeys) walk with an alternating gait.



Perfect Walkers create “registered” tracks in which the hind foot is placed in the preceding track of the front foot. These include white-tailed deer and fox.



## Minnesota Valley National Wildlife Refuge

### Wrap-Up

Inform students during their refuge fieldtrip, they will take a closer look at other animal signs and learn what other types of clues animals may leave behind. Remind students to wear warm clothes (winter jacket, boots, snow pants, gloves and hat) for the outside activities.

## Wildlife Walkers On Site Activities

### Materials

- Five sets of wildlife signs, one set for each of the following categories: set of signs of feeding, set of nests and shelters, set of body waste and cast off, and set of tracks and trails. Create an extra set of any category.
- One laminated copy of the Wildlife Signs Checklist for each group leader.

### Introduction

Inside Visitor Center (10 minutes)

If snow is present as students arrive and proceed toward the visitor center, ask them to examine their tracks in the snow. Ask students to compare their tracks with those of a friend or teacher. You may want to take the longest route into the building.

Ask the students: Have you ever been scolded for tracking muddy footprints into the house? Was your parent/guardian able to tell it was your footprint instead of your brother's or sister's? It may have been possible for your parent/guardian to also guess where you had been and what you had been doing. Animals leave tracks in their home habitat too! If we study the tracks carefully, we may be able to tell what animal left the track and where they may have been going, or what they were doing. However, tracks are not the only signs wildlife leave behind!

Set up the classroom in table groups. Place one box containing a set of animal signs in the center of each table. Instruct students to leave the box alone until instructed to do otherwise. Briefly review the four track patterns students learned in the pre-activity.

Now ask students to name one other type of sign an animal might leave behind. Write that sign up on the board. Let students, under chaperone guidance, examine the wildlife signs in their boxes. Ask them to try and figure out how all the signs are similar. Give them 5 to 10 minutes to do this. Let each group report their conclusions. Identify the signs they don't recognize and be sure the entire class sees the items too.

## Minnesota Valley National Wildlife Refuge

Group signs into the categories found on the Winter Wildlife Signs sheet: Signs of feeding, Nests and Shelter, Track and trails, and Body Waste and Castoffs.

Ask students if there were any other signs not represented on their table groups. Sounds are also an important wildlife sign.

### Hike

On refuge (60 minutes)

Give each team chaperone one copy of the laminated Wildlife Signs Checklist. Allow students as much time as possible to explore outside. The adult chaperone should record what they find on the checklist.

### Wrap-up Management Connection

Visitor Center (20 minutes)

Back in the classroom ask students to begin working on their journal page when they return. Leave at least 10 minutes for student teams to share what they found with the entire class.

Why do refuge biologists need to identify wildlife signs and tracks? Not all wildlife is easily seen. A biologist might never know a particular species of animal is living on the refuge if it is nocturnal (active at night) or especially secretive.



Minnesota Valley National Wildlife Refuge

Common Tracks seen at  
Minnesota Valley National Wildlife Refuge

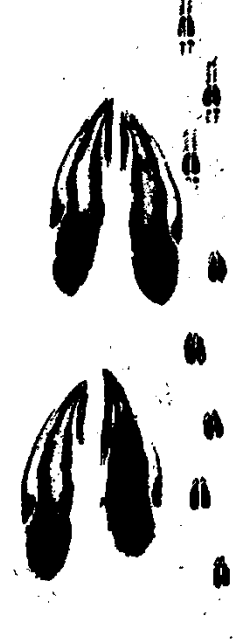
Gray Squirrel



Turkey



Deer



Mouse



Perching Bird



Rabbit



Raccoon



Red Fox



# Winter Wildlife Signs

Today we explored the habitats of Minnesota Valley National Wildlife Refuge looking for winter wildlife signs and sounds.

Here is a list of what we found.

## Signs of Feeding

- \_\_\_\_\_ Nipped twigs
- \_\_\_\_\_ Chewed twigs
- \_\_\_\_\_ Pine cone “cores”
- \_\_\_\_\_ nut shells
- \_\_\_\_\_ hair, bones, feathers

## Nests, and Shelters

- \_\_\_\_\_ nests in trees
- \_\_\_\_\_ nests in grasses
- \_\_\_\_\_ holes in trees

## Other Signs

## Tracks and Trails

- \_\_\_\_\_ tracks
- \_\_\_\_\_ tunnels in snow

## Body Waste and Castoffs

- \_\_\_\_\_ scat
- \_\_\_\_\_ feathers
- \_\_\_\_\_ owl pellets

## Sounds

- \_\_\_\_\_ bird calls
- \_\_\_\_\_ squirrel chatter



## More About Wildlife Signs and Tracks

Minnesota Valley National Wildlife Refuge is a place where deer, coyotes, badgers, bald eagles and beavers live right next door to three million people!

Over 220 species of birds, 50 species of mammals, 30 species of reptiles and amphibians, many fish and untold numbers of invertebrates depend on the refuge habitat. Some of these animals are easy to see; however, many are not. The animals that are hard to see leave many clues behind that can help us learn about their lives.

Looking at tracks in the sand, mud, or fresh fallen snow is similar to reading the morning paper. The story is there. Animal tracks can tell you which animals were out last night, where they went, and possibly, what they did.

- In addition to tracks, other signs add details to the story such as: a single molted feather or a pile of feathers, a bone, a tuft of fur or an antler. Animal homes may be easy to spot such as: a leaf nest, nest hole, burrow, web, cattail lodge, beaver-gnawed stump, a dam or lodge.
- Scat, the scientific name for mammal droppings, may contain hair, seeds, berries, fish scales, or insect parts that reveal the mammal's diet. Could it be a carnivore, an herbivore, an omnivore? Kids love scatological jokes. Go ahead; let them get it out of their system! (Poop, poo, caca, doodoo, etc.) However, there are new words to learn: excrement, dung, droppings, feces, guano.
- Owl pellets, which are the regurgitation of indigestible food items such as bones or fur, are not easy to find. Look under the tallest trees you find on the hike. These tend to be the roosting trees where owl and hawks feed and rest.
- A log or tree stump with gnawed acorns, walnut hulls, or pine cone "core" may indicate a "dinner table" for a squirrel.

## Minnesota Valley National Wildlife Refuge

- Look for deer trails, deer beds, browse on small woody plants, droppings, and buck rubs. Look at the size of the tracks to determine if it was a doe, yearling or buck? How many animals travelled together? Were they walking or running?
- Insects are the most numerous residents in the refuge. Look for frass (known as insect droppings), cocoons, hells, body parts, and sounds.

### Common Scat at Minnesota Valley

White-tailed Deer



Raccoon



Cotton-tail Rabbit



Coyote



Red Fox



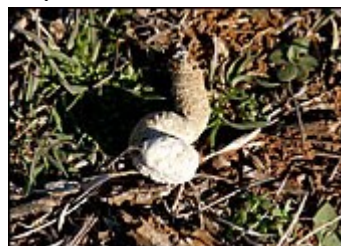
Grey Squirrel



Wild Turkey Male



Wild Turkey Female



## Wildlife Walkers Rainy Day Hike Alternatives

### Activity 1: Animal Clues Scavenger Hunt

Inside Classroom (30 minutes)

Students will discover different animal tracks and signs by exploring the visitor center on a scavenger hunt.

#### Materials

- Rubber tracks (deer and fox)
- Feather, antler, rabbit chews, and nuts
- Pelts (fox and raccoon)
- Mounts or photos (bird, beaver, hawk or owl)
- Rubber scat
- Animal Clues Scavenger Hunt sheets (one per student)
- Clipboard and pencil (one per student)

Scatter the above items throughout the visitor center. Hand out a clipboard with the scavenger hunt and a pencil to each student. Assign chaperones to supervise and assist each group.

Instruct students to walk through the visitor center in search of all twelve items that match the clues on their Animal Clues Scavenger Hunt paper. When they find one of the items they must complete the task assigned to that wildlife sign. For example, when they find the deer track they must draw a picture of the track. When they find fox fur they must write a description of how it feels. Once they have filled in each box they are finished.

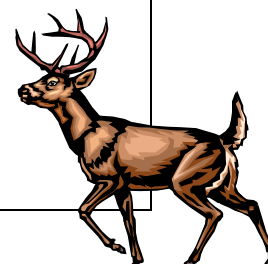


## Animal Clues Scavenger Hunt

(Bloomington Education and Visitor Center)



Find an animal track. Draw it.	Find a feather. What animal has feathers?	Find a bird. Draw it.
Find a rabbit. What does a rabbit eat in winter?	Find an animal. Draw it.	Find a fur. What does it feel like?
Find a bird with a sharp beak and sharp claws. What is its name?	Find some nuts. What animal would eat these?	Find a raccoon pelt. Does it have a pattern?
Find some scat and draw it.	Find a muskrat. What color is it?	Find an antler. What does it feel like?



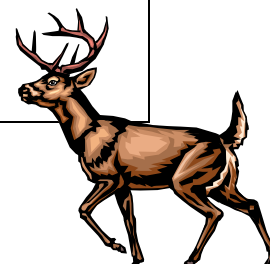
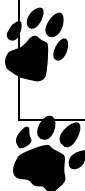


## Animal Clues Scavenger Hunt

(Rapids Lake Education and Visitor Center)



Find and draw an animal track.	Find a feather. What animal has feathers?	Find and draw a nest.
Find a bird with a sharp beak and sharp claws. What is its name?	Find the bird feeders. Who is visiting the feeders?	Measure YOUR wing span. What bird could you be?
Find and draw some scat. What animal left it?	Find a raccoon pelt. Does it have a pattern?	Build a funny sentence on the magnetic board.  What was your favorite word?
Find an antler. What does it feel like?	Find the nature calendar. What wildlife have we seen this month?	Find and draw seed.



## Wildlife Walkers Rainy Day Hike Alternatives

### Activity 2: Keeping Track of Your Friends

Inside Classroom (30 minutes)

Identify tracks made by a friend's shoe.

#### Materials

- Crayons- 1 per student
- Blank Paper- 1 per student

#### Activity

Ask students to sit in a circle on the floor. Tell students they will learn how to identify tracks made by their fellow students. To do so, first everyone must create a "track".

Demonstrate how to do a shoe rubbing using a shoe, paper and crayon. Place the paper across the sole of the shoe and rub the crayon across the bottom making a rubbing of the tread.

Distribute paper and crayons to the students. Ask the students to remove their left shoe and create a track as demonstrated. Collect all the tracks.

Explain to students that now they will "track down" a friend using the rubbings. Ask everyone to place their left shoe in the center of the circle. Distribute the rubbings, making sure no one receives their own track. Challenge each student to examine the shoes in the center of the circle carefully so they may find the shoe that made the "track" they received. Once each student is confident they found the shoe that made the track, ask them to find the person wearing their match.



## Keeping Track of your Friends

Identify tracks made by a friend's shoe. Remove your left shoe and use a crayon and this sheet of paper to make a rubbing of the tread on the bottom of the shoe. Give this piece of paper rubbing to your leader. Place your left shoe in the center of the circle.

